

## CLAIMS

1. An adiponectin expression-inducing agent, which comprises the protein of (1) or  
5 (2):
  - (1) a protein comprising the amino acid sequence of SEQ ID NO: 2; or
  - (2) a protein comprising an amino acid sequence with one or more amino acid deletions, substitutions, additions, or insertions in the amino acid sequence of SEQ ID NO: 2.
- 10 2. An adiponectin expression-inducing agent; which comprises the DNA of (1) or (2), or a vector carrying said DNA:
  - (1) a DNA comprising the nucleotide sequence of SEQ ID NO: 1; or
  - (2) a DNA that hybridizes under stringent conditions with the nucleotide sequence of SEQ ID  
15 NO: 1.
3. A preventive or therapeutic pharmaceutical composition for a metabolic disease or heart disease, wherein the composition comprises the adiponectin expression-inducing agent of claim 1 or 2 as an active ingredient.
- 20 4. A cell for screening for an adiponectin expression-inducing substance, wherein the cell carries a reporter gene that is quipped with at least an enhancer element comprising:
  - (1) a DNA comprising the nucleotide sequence of SEQ ID NO: 5; or
  - (2) a DNA comprising a nucleotide sequence with one or more nucleotide deletions, additions, substitutions, or insertions in the nucleotide sequence of SEQ ID NO: 5.
- 25 5. The cell of claim 4, which further carries a KLF9-encoding DNA.
6. The cell of claim 4 or 5, which is an adipocyte.
- 30 7. The cell of claim 4 or 5, which is a hypertrophic adipocyte.
8. A method of screening for an adiponectin expression-inducing substance, wherein the method comprises the steps of:
  - (1) reacting the cell of claim 4 with a test substance;
  - 35 (2) detecting expression of a reporter gene; and
  - (3) selecting a test substance that yields a higher reporter gene expression in the cell

reacted with the test substance than in the cell that has not reacted with the test substance.

9. A method of screening for a substance that can induce adiponectin expression, wherein the method comprises the steps of:

- 5           (1) reacting the cell of claim 5 with a test substance;  
            (2) detecting expression of a reporter gene; and  
            (3) selecting a test substance that yields a higher reporter gene expression in the cell treated with the test substance than in the cell that has not reacted with the test substance.

10           10. A method of screening for a preventive or therapeutic pharmaceutical agent for obesity or an obesity-related disease, wherein the method comprises the steps of:

- (1) reacting the cell of claim 4 with a test substance;  
            (2) detecting expression of a reporter gene; and  
            (3) selecting a test substance that yields a higher reporter gene expression in the cell  
15   reacted with the test substance than in the cell that has not reacted with the test substance.

11. A method of screening for a preventive or therapeutic pharmaceutical agent for obesity or an obesity-related disease, wherein the method comprises the steps of:

- 20           (1) reacting the cell of claim 5 with a test substance;  
            (2) detecting expression of a reporter gene; and  
            (3) selecting a test substance that yields a higher reporter gene expression in the cell reacted with the test substance than in the cell that has not reacted with the test substance.